

Qiang Cheng

List of Publications by Year in descending order

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88
papers

1,889
citations

236925

25
h-index

302126

39
g-index

88
all docs

88
docs citations

88
times ranked

1005
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental investigations on visualization of three-dimensional temperature distributions in a large-scale pulverized-coal-fired boiler furnace. Proceedings of the Combustion Institute, 2005, 30, 1699-1706.	3.9	195
2	Numerical investigation of a novel micro combustor with double-cavity for micro-thermophotovoltaic system. Energy Conversion and Management, 2015, 106, 173-180.	9.2	77
3	Numerical study on a multiple-channel micro combustor for a micro-thermophotovoltaic system. Energy Conversion and Management, 2016, 120, 197-205.	9.2	73
4	Dynamic thermal camouflage via a liquid-crystal-based radiative metasurface. Nanophotonics, 2020, 9, 855-863.	6.0	73
5	Near-field radiative heat transfer between graphene and anisotropic magneto-dielectric hyperbolic metamaterials. Physical Review B, 2016, 94, .	3.2	63
6	Radiative metasurface for thermal camouflage, illusion and messaging. Optics Express, 2020, 28, 875.	3.4	63
7	Machine learning-optimized Tamm emitter for high-performance thermophotovoltaic system with detailed balance analysis. Nano Energy, 2020, 72, 104687.	16.0	53
8	A new way to calculate radiative intensity and solve radiative transfer equation through using the Monte Carlo method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 459-481.	2.3	50
9	Simultaneous Measurement of Three-Dimensional Temperature Distributions and Radiative Properties Based on Radiation Image Processing Technology in a Gas-Fired Pilot Tubular Furnace. Heat Transfer Engineering, 2014, 35, 770-779.	1.9	45
10	Many-body near-field radiative heat transfer: methods, functionalities and applications. Reports on Progress in Physics, 2021, 84, 036501.	20.1	45
11	The influence of anisotropic scattering on the radiative intensity in a gray, plane-parallel medium calculated by the DRESOR method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 104, 99-115.	2.3	43
12	Magnetically Tunable Near-Field Radiative Heat Transfer in Hyperbolic Metamaterials. Physical Review Applied, 2020, 13, .	3.8	38
13	Highly efficient narrow-band absorption of a graphene-based Fabry-Pérot structure at telecommunication wavelengths. Optics Letters, 2019, 44, 3430.	3.3	38
14	Dual-band tunable narrowband near-infrared light trapping control based on a hybrid grating-based Fabry-Pérot structure. Optics Express, 2020, 28, 1647.	3.4	37
15	1D trilayer films grating with W/SiO ₂ /W structure as a wavelength-selective emitter for thermophotovoltaic applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 158, 136-144.	2.3	36
16	Investigation of double-layer coating pigmented with CuO particles of different concentrations on aesthetic and thermal aspects. International Journal of Thermal Sciences, 2016, 105, 36-44.	4.9	33
17	The DRESOR Method for a Collimated Irradiation on an Isotropically Scattering Layer. Journal of Heat Transfer, 2007, 129, 634-645.	2.1	32
18	Two-dimensional trilayer grating with a metal/insulator/metal structure as a thermophotovoltaic emitter. Applied Optics, 2016, 55, 1284.	2.1	31

#	ARTICLE	IF	CITATIONS
19	Plasmon-enhanced broadband absorption of MoS ₂ -based structure using Au nanoparticles. Optics Express, 2019, 27, 2305.	3.4	31
20	Thermal routing via near-field radiative heat transfer. International Journal of Heat and Mass Transfer, 2020, 150, 119346.	4.8	30
21	The DRESOR method for transient radiation transfer in 1-D graded index medium with pulse irradiation. International Journal of Thermal Sciences, 2013, 68, 127-135.	4.9	28
22	An improved colorimetric method for visualization of 2-D, inhomogeneous temperature distribution in a gas fired industrial furnace by radiation image processing. Proceedings of the Combustion Institute, 2011, 33, 2755-2762.	3.9	27
23	Optical properties of a grating-nanorod assembly structure for solar cells. Optics Communications, 2016, 376, 14-20.	2.1	27
24	Ultra-narrow-band and highly efficient near-infrared absorption of a graphene-based Tamm plasmon polaritons structure. Journal of Applied Physics, 2018, 124, .	2.5	27
25	Silicon complex grating with different groove depths as an absorber for solar cells. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 132, 70-79.	2.3	26
26	Modulation and splitting of three-body radiative heat flux via graphene/SiC core-shell nanoparticles. International Journal of Heat and Mass Transfer, 2019, 140, 80-87.	4.8	26
27	The Solution of Transient Radiative Transfer With Collimated Incident Serial Pulse in a Plane-Parallel Medium by the DRESOR Method. Journal of Heat Transfer, 2008, 130, .	2.1	23
28	In Situ Measurement of Alkali Metals in an MSW Incinerator Using a Spontaneous Emission Spectrum. Applied Sciences (Switzerland), 2017, 7, 263.	2.5	23
29	Three-Body Heat Transfer Between Anisotropic Magneto-Dielectric Hyperbolic Metamaterials. Journal of Heat Transfer, 2018, 140, .	2.1	23
30	Performance of a large-scale solar updraft power plant in a moist climate. International Journal of Heat and Mass Transfer, 2015, 91, 619-629.	4.8	21
31	Study on the combustion behavior and soot formation of single coal particle using hyperspectral imaging technique. Combustion and Flame, 2021, 233, 111568.	5.2	21
32	The DRESOR method for one-dimensional transient radiative transfer in graded index medium coupled with BRDF surface. International Journal of Thermal Sciences, 2015, 91, 96-104.	4.9	20
33	Study on inversion of morphological parameters of soot aggregates in hydrocarbon flames. Combustion and Flame, 2017, 183, 261-270.	5.2	20
34	Non-imaging concentrating reflectors designed for solar concentration systems. Solar Energy, 2014, 103, 494-501.	6.1	19
35	Radiative Properties of Ceramic Al_2O_3 , AlN, and Si_3N_4 : I. Experiments. International Journal of Thermophysics, 2016, 37, 1.	2.1	19
36	The DRESOR method for radiative heat transfer in a one-dimensional medium with variable refractive index. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2835-2845.	2.3	18

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37	Radiative Properties of Ceramic Al_2O_3 , AlN and Si_3N_4 : Modeling. International Journal of Thermophysics, 2017, 38, 1.	2.1	18
38	Broadband perfect infrared absorption by tuning epsilon-near-zero and epsilon-near-pole resonances of multilayer ITO nanowires. Applied Optics, 2018, 57, 102.	1.8	18
39	Enhanced Near-Field Radiative Heat Transfer between Graphene/hBN Systems. Small, 2022, 18, e2108032.	10.0	18
40	The DRESOR method for radiative heat transfer in semitransparent graded index cylindrical medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 143, 16-24.	2.3	17
41	Study of temperature, apparent spectral emissivity, and soot loading of a single burning coal particle using hyper-spectral imaging technique. Combustion and Flame, 2019, 209, 267-277.	5.2	17
42	Distributed parameter modeling and simulation for the evaporation system of a controlled circulation boiler based on 3-D combustion monitoring. Applied Thermal Engineering, 2008, 28, 164-177.	6.0	16
43	Tailored non-imaging secondary reflectors designed for solar concentration systems. Solar Energy, 2014, 110, 160-167.	6.1	16
44	Tunable narrowband shortwave-infrared absorber made of a nanodisk-based metasurface and a phase-change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ layer. Applied Optics, 2020, 59, 6309.	1.8	16
45	Highly-Directional Radiative Intensity in a 2-D Rectangular Enclosure Calculated by the DRESOR Method. Numerical Heat Transfer, Part B: Fundamentals, 2008, 54, 354-367.	0.9	15
46	Optimal turbine pressure drop for solar chimney-aided dry cooling system in coal-fired power plants. Energy Conversion and Management, 2017, 133, 87-96.	9.2	15
47	Surface plasmon-enhanced optical absorption in monolayer MoS_2 with one-dimensional Au grating. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 211, 138-143.	2.3	15
48	A direct solution for radiative intensity with high directional resolution in isotropically scattering media. International Journal of Heat and Mass Transfer, 2018, 117, 296-302.	4.8	14
49	Multichannel tunable narrowband mid-infrared optical filter based on phase-change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ defect layers. Applied Optics, 2020, 59, 595.	1.8	14
50	The effect of BRDF surface on radiative heat transfer within a one-dimensional graded index medium. International Journal of Thermal Sciences, 2014, 77, 116-125.	4.9	13
51	Enhanced absorptance of the assembly structure incorporating germanium nanorods and two-dimensional silicon gratings for photovoltaics. Applied Optics, 2016, 55, 8821.	2.1	13
52	Numerical Analysis on Thermal Tuning Efficiency and Thermal Stress of a Thermally Tunable SG-DBR Laser. IEEE Photonics Journal, 2016, 8, 1-12.	2.0	13
53	Numerical simulation of white double-layer coating with different submicron particles on the spectral reflectance. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 176-180.	2.3	13
54	Magnetic-field control of near-field radiative heat transfer between graphene-based hyperbolic metamaterials. Applied Physics Letters, 2020, 117, .	3.3	13

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55	THE DRESOR METHOD FOR THE SOLUTION OF THE RADIATIVE TRANSFER EQUATION IN GRAY PLANE-PARALLEL MEDIA. , 2004, , .		13
56	Equation-solving DRESOR method for radiative transfer in a plane-parallel, absorbing, emitting, and isotropically scattering medium with transparent boundaries. International Journal of Heat and Mass Transfer, 2012, 55, 3454-3457.	4.8	12
57	Solution of radiative intensity with high directional resolution in three-dimensional rectangular enclosures by DRESOR method. International Journal of Heat and Mass Transfer, 2013, 60, 81-87.	4.8	11
58	Existence of Dual-Peak Temporal Reflectance from a Light Pulse Irradiated Two-Layer Medium. Numerical Heat Transfer; Part A: Applications, 2009, 56, 342-359.	2.1	10
59	The effect of BRDF surface on radiative transfer within a two-dimensional graded index medium. International Journal of Thermal Sciences, 2017, 117, 90-97.	4.9	9
60	Active Control of Near-Field Radiative Heat Transfer Between InSb and Graphene Multilayered Magneto-Optical Metamaterials. International Journal of Heat and Mass Transfer, 2022, 192, 122868.	4.8	9
61	Solution of radiative transfer in a one-dimensional anisotropic scattering media with different boundary conditions using the DRESOR method. Heat Transfer - Asian Research, 2008, 37, 138-152.	2.8	8
62	Changing Characteristics of Flame Images Under Different Oxy-Fuel Atmospheres in a 3-MW Pilot-Scale Furnace. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2265-2271.	4.7	8
63	Evaluation of performance of near-field thermophotovoltaic systems based on entropy analysis. Journal of Applied Physics, 2020, 127, .	2.5	8
64	Study on the combustion behavior of single coal particle using a thermal-imaging technique. Combustion and Flame, 2022, 242, 112178.	5.2	8
65	The Iterative-DRESOR method to solve radiative transfer in a plane-parallel, anisotropic scattering medium with specular-diffuse boundaries. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 1072-1084.	2.3	7
66	Hyperbolic plasmon-phonon dispersion and tunable spontaneous emission enhancement in Ge ₂ Sb ₂ Te ₅ -based multilayer graphene and hBN system. Journal of Applied Physics, 2021, 130, .	2.5	7
67	Road surface mirage: A bunch of hot air?. Science Bulletin, 2011, 56, 962-968.	1.7	6
68	Effects of surface emissivity and medium scattering albedo on the computational accuracy of radiative heat transfer by MCM. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 240, 106712.	2.3	6
69	Magnetic-field control of near-field radiative heat transfer by liquid crystals-based magneto-optical metamaterials. Journal Physics D: Applied Physics, 2021, 54, 425103.	2.8	6
70	Simultaneous Reconstruction of the Temperature and Inhomogeneous Radiative Properties of Soot in Atmospheric and Pressurized Ethylene/Air Flames. Combustion Science and Technology, 2020, 192, 1946-1962.	2.3	5
71	Physical and chemical characterization of two kinds of coal-derived soot. Combustion and Flame, 2022, 238, 111759.	5.2	5
72	Ultrafast Tunable Near-Field Radiative Thermal Modulator Made of Ge ₃ Sb ₂ Te ₆ . Journal of Heat Transfer, 2019, 141, .	2.1	4

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73	Experimental Study on Co-Firing of Coal and Brewery Wastewater Sludge. Applied Sciences (Switzerland), 2020, 10, 7589.	2.5	4
74	Nongray radiation from gas and soot mixtures in planar plates based on statistical narrow-band spectral model. Frontiers in Energy, 2011, 5, 149-158.	2.3	3
75	Actively tunable hybrid plasmon-phonon polariton modes in ferroelectric/graphene heterostructure systems at low-THz frequencies. Optical Materials, 2022, 131, 112623.	3.6	3
76	Radiative Heat Transfer in Two-Dimensional Cylindrical Medium Coupled with BRDF Surface. Journal of Thermophysics and Heat Transfer, 2019, 33, 1065-1073.	1.6	2
77	Magnetically tunable dual-band terahertz absorption based on guided-mode resonance. Applied Optics, 0, , .	1.8	2
78	Analysis and Optimisation of Two-Dimensional Silicon Complex Grating With Different Ridge Heights or Groove Depths for Solar Cells. , 2013, , .		1
79	Co-firing characteristics and kinetic analysis of distillers'™ grains/coal for power plant. IET Renewable Power Generation, 2019, 13, 2148-2155.	3.1	1
80	High Temporal-spatial Distribution of Soot Temperature and Volume Fraction in Single Coal Combustion Flame. Combustion Science and Technology, 0, , 1-13.	2.3	1
81	COMPARISON OF TWO STATISTICAL NARROW BAND MODELS FOR NON-GRAY GAS RADIATION IN PLANAR PLATES. , 2010, , .		1
82	Decoupling Investigation of Furnace Side and Evaporation System in a Pulverized-Coal Oxy-Fuel Combustion Boiler. Energies, 2022, 15, 2354.	3.1	1
83	The Simulation of Apparent Directional Emissivity in a Three-Dimensional Non-Isothermal Medium by the DRESOR Method. , 2011, , .		0
84	Thermal analysis and design of SG-DBR laser array. , 2016, , .		0
85	Thermodynamic performance of near-field electroluminescence and negative electroluminescent refrigeration systems. AIMS Energy, 2021, 9, 465-482.	1.9	0
86	Design of multi-ellipse broadband metamaterial absorber. Journal of Physics: Conference Series, 2021, 1871, 012030.	0.4	0
87	Thermodynamic bounds of work and efficiency in near-field thermoradiative systems. International Journal of Heat and Mass Transfer, 2021, 180, 121807.	4.8	0
88	Enhanced Near-Field Radiative Heat Transfer between Graphene/hBN Systems (Small 19/2022). Small, 2022, 18, .	10.0	0